REMARKS/ARGUMENTS

The final Office action dated 30 October 2007 was accompanied by an Interview Summary. The Interview Summary is accurate. More particularly, applicant was interested in knowing if the previous amendment was sufficient to overcome the art of record at that time. The examiner indicated that the previous amendment appeared to overcome the art of record but that an additional search would be necessary and that the examiner could not opine on the ultimate patentability of the claims.

In paragraph 3 of the final Office action, the abstract is objected to "because the expressions should be separated using commas or semicolons." The abstract has been corrected as requested.

In paragraph 4 of the final Office action, paragraph [0010] is objected to because the expressions should be separated with either commas or semicolons. Paragraph [0010] has been corrected as requested. Claims 3 and 13 have been amended in a similar manner.

Claim 26 has been amended to add the phrase "to produce a transposition of the data in the array." Similar language appears in the preambles of the method claims, but because of the nature of apparatus claim 26, that language was omitted from the preamble. The omitted language is now positively recited in the body of the claim.

In paragraph 8 of the Office action, claims 1-7, 9-17, 19-20, and 26 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Kirsch, U.S. Publication Number 20040054870. Applicant respectfully traverses that rejection.

The independent claims, claims 1, 11, and 26 have been amended to recite that the diagonals are "of length N" and that the data is shifted "N-1 times . . . until each processing element in each of said plurality of diagonals has received the original data held by every other processing element in that diagonal." Support for the amendment can be found in FIGs. 16A, 16B, and 17A-17H, and the corresponding description in paragraph [0084] of the published application. Furthermore, it is believed that the phrase "of length N" is inherent from the other claim language.

It is believed that these amendments to the independent claims clearly define over Kirsch

because in Kirsch, the data moves only as far as needed, with the data on the leading diagonal 804 not moving at all as clearly taught by the following paragraphs from Kirsch.

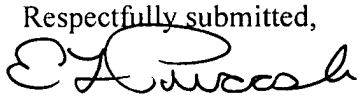
> [0163] The diagonal shift 802 is achieved by shifting data with pairs of row and column shift operations 802a, 802b as described above. The number of diagonal shifts, `N`, for each processing element required to achieve a complete transposition of the data in the processing element array 200 depends on the distance of each processing element 806 from a leading diagonal 804.
>
> [0164] Referring to FIG. 8b, the array 200 is shown with a counter 806 for each processing element 821. A complete transposition operation of the, data stored in the array 200 is performed by decrementing the counter 820 on each diagonal shift 802. When a counter 820 in a given processing element reaches zero, the data in that processing element is not shifted any further and the neighbourhood connection register 308 in that processing element is loaded with its result value from the result register 306.
>
> [0165] Each counter 820 starts with the value N, which is obtained for each processing element from the following expression:
>
> [0166] (COL_INDEX+ROW_INDEX+1) mod ARRAY_SIZE
>
> [0167] where COL_INDEX and ROW_INDEX are row and column indexes 822, 824 for a processing element. ARRAY_SIZE is a width/height 826 of the array. N.B. The aforementioned expression gives zero for all the processing elements on the leading diagonal as the values in these processing elements do not have to move. (emphases added)

Per the amended claims, each of the processing elements receives all of the original data held by all of the other processing elements within a diagonal of length N (i.e., 0, 9, 18, 27, 36, 45, 54, 63) and then selects the value needed to produce the transposition based on the processing element's position.

Applicant has at all times made *bona fide* attempts to address the examiner's position. If the examiner is of the opinion that the currently pending claims do not define over the art

currently of record, the examiner is respectfully requested to contact applicant's attorney at the number listed below so that additional changes to the claims may be considered.

Respectfully submitted,



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